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W374C

Circular No. 14—Radio. (Fourth Edition—Revised)

**U. S. DEPARTMENT OF AGRICULTURE**  
**WEATHER BUREAU**

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Forecast Division

Washington, D. C., August 15, 1929

**DISTRIBUTION OF WEATHER FORECASTS, INFORMATION, AND WARNINGS  
 BY RADIO IN THE GULF OF MEXICO, CARIBBEAN SEA, AND  
 ADJACENT WATERS OF THE NORTH ATLANTIC OCEAN**

Weather bulletins are broadcast daily from a number of naval and commercial radio stations for the benefit of navigation and other interests in the Gulf of Mexico, Caribbean Sea, contiguous North Atlantic Ocean, and on adjacent coasts.

**EXPLANATION OF BULLETINS**

The bulletins which are broadcast from each radio station are of the same general character and are similarly translated. They are based upon observations taken in the United States at 8 a. m. (1300) and 8 p. m. (0100), 75th meridian time, and one hour earlier at stations in the Gulf of Mexico and Caribbean Sea, of the date of distribution, as indicated.

The bulletins are divided into two parts. The first contains reports of barometric pressure, wind direction and velocity at certain stations, each of which is indicated by one or more "key letters", and using a group of five figures to represent the data contained in the report. The second part consists of wind and weather forecasts and warnings of storms and hurricanes. If a weather report from any station can not be supplied, the key letters and data figures will be omitted altogether, but in case only a portion of a report is missing, the letter "x" will be substituted for the omitted data figure.

The weather reports contained in the first part of the bulletins, and supplemented by others picked up from vessels, can be used in the production of weather maps, which will be of much value to navigating officers. Base charts prepared for this purpose, which show the reporting stations and their key letters, will be forwarded upon application.

*The schedules of broadcasts in all cases are given in 75th meridian time, with equivalent in Greenwich civil time (G. C. T.).*

**KEY TO FIRST PART AND EXAMPLES**

**Barometric pressure** (first three figures of group): Pressure, (reduced to sea level) in inches and hundredths, except that the first figure of full reading is omitted. Thus, if the corrected pressure is 29.98 inches, the figures 998 are sent; or, if the reading is 30.14 inches, the figures 014 are sent.

**SCHEDULES OF STATIONS BROADCASTING BULLETINS**

Following is a list of radio broadcasting stations, from which broadcasts are made in cooperation with the United States Weather Bureau, with a description of the bulletins in each case. *All broadcasts are made daily, Sundays and holidays included.*

**BROWNSVILLE, TEX.**

Station NAY—United States Navy.

**Radiotelegraph.** Frequency, 104 k. c., CW (2,885 meters).  
 12 midnight (0500).

Observation stations contained in first part and code letters	Second part of bulletin
Key West, Fla.....	K
Tampa, Fla.....	TA
Pensacola, Fla.....	P
Mobile, Ala.....	MO
New Orleans, La.....	NO
Port Eads, La.....	BW
Port Arthur, Tex.....	PA
Galveston, Tex.....	GV
Corpus Christi, Tex.....	CC
Brownsville, Tex.....	BV
Kingston, Jamaica.....	KN
Havana, Cuba.....	HA
San Juan, P. R.....	SJ
Guantanamo Bay, Cuba.....	GO
Cape Gracias, Nicaragua.....	CG
	Winds and weather over east Gulf of Mexico (east of longitude 90°). Winds and weather over west Gulf of Mexico (west of longitude 90°). Winds and weather over Caribbean Sea (west of longitude 73°) and Windward Passage. Storm warnings for Gulf of Mexico, Key West to the Apalachicola River. Location and expected movement of storm centers affecting Gulf of Mexico. All hurricane warnings and advices.

*Direction of surface wind* (fourth figure of group).

0=calm, or no movement.	5=southwest.
1=northeast.	6=west.
2=east.	7=northwest.
3=southeast.	8=north.
4=south.	

*Force of wind* (fifth figure of group): Sent according to Beaufort scale, values 0 to 9, inclusive.

*Beaufort scale*

Scale No.	Explanatory titles	Miles per hour (statute)	Terms used in forecasts
0.....	Calm .....	Less than 1)	
1.....	Light air .....	1 to 3)	Light.
2.....	Slight breeze .....	4 to 7)	
3.....	Gentle breeze .....	8 to 12)	Gentle.
4.....	Moderate breeze .....	13 to 18)	Moderate.
5.....	Fresh breeze .....	19 to 24)	Fresh.
6.....	Strong breeze .....	25 to 31)	Strong.
7.....	High wind .....	32 to 38)	
8.....	Gale .....	39 to 46)	Gales.
9.....	Strong gale .....	47 to 54)	
*10 (W).....	Whole gale .....	55 to 63)	Whole gale.
*11 (S).....	Storm .....	64 to 75)	
*12 (H).....	Hurricane .....	Over 75	Hurricane.

\*The numeral code does not admit of force in excess of 9 being sent. Therefore, the letters W, S, and H will be used for wind forces 10, 11, and 12, respectively.

NOTE.—The last column gives the terms applicable to the Beaufort scale which are used in the forecasts and warnings issued by the U. S. Weather Bureau.

*Example of group as sent: 99842.*

Translation: Barometric pressure, 29.98 inches, wind from south, wind force, 2 (4 to 7 statute miles per hour).

The second part of the bulletin consists of wind and weather forecasts and, whenever conditions warrant, information as to storm centers, storm and hurricane warnings and advices to shipping. Whenever a storm exists that is likely to affect a section, the location and expected direction of movement of the storm center will be given, followed by any storm or hurricane warnings and advices to shipping which have been issued.

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## KEY WEST, FLA.

Station NAR—United States Navy.

Radiotelegraph. Frequency, 113 k. c., CW (2,655 meters), 11 p. m. (0400).

Observation stations contained in first part and code letters	Second part of bulletin
Hatteras, N. C. .... H	Winds and weather off Atlantic coast, Hatteras to Key West.
Charleston, S. C. .... C	Winds and weather over east Gulf of Mexico (east of longitude 90°).
Jacksonville, Fla. .... JA	Winds and weather over west Gulf of Mexico (west of longitude 90°).
Miami, Fla. .... MI	Winds and weather over Caribbean Sea (west of longitude 73°) and Windward Passage.
Key West, Fla. .... K	Storm warnings Hatteras to Key West.
Pensacola, Fla. .... P	Storm warnings Gulf of Mexico, Key West to the Apalachicola River.
Port Eads, La. .... BW	Location and expected movement of storm centers affecting Atlantic coast south of Hatteras, and Gulf of Mexico.
Galveston, Tex. .... GV	All hurricane warnings and advices.
Brownsville, Tex. .... BV	
Fort Worth, Tex. .... FW	
Kingston, Jamaica. .... KN	
Turks Island. .... TI	
Havana, Cuba. .... HA	
Guantanamo Bay, Cuba. .... GO	
Cape Gracias, Nicaragua. .... CG	
San Juan, P. R. .... SJ	

## SAN JUAN, P. R. (July 1 to November 15, inclusive.)

Station NAU—United States Navy.

Radiotelegraph. Frequencies, 48 k. c., CW (6,250 meters), and 113 k. c., CW (2,655 meters), 7:45 p. m. (0045), simultaneously; and 113 k. c., CW (2,655 meters), at 9 p. m. (0200).

Observation stations contained in first part and code letters	Second part of bulletin
San Juan, P. R. .... SJ	All hurricane warnings.
St. Thomas, Virgin Islands. .... ST	In the absence of a tropical storm the following words will be sent each day "Weather normal over eastern Caribbean".
Basseterre, St. Kitts. .... BT	
Roseau, Dominica. .... RS	
Bridgetown, Barbados. .... BB	
Santo Domingo, D. R. .... SD	
Puerto Plata, D. R. .... PL	
Castañas, St. Lucia. .... LU	
Willemstadt, Curaçao. .... W	
Port of Spain, Trinidad. .... PS	
St. Martins, D. W. I. .... SM	

Hurricane warnings, when received, are broadcast on 500 k. c. (600 meters) immediately after first silent period, and repeated at 1-hour intervals for 12 hours.

NOTE.—This bulletin is rebroadcast by the Naval Radio Station NAW at Guantanamo, Cuba, during the hurricane season, July 1 to November 15, inclusive, on a frequency of 113 k. c., CW (2,656 meters), at 8:15 p. m. (0115).

## ALMIRANTE, PANAMA.

Station RXB—United Fruit Company.

Radiotelegraph.—Wave length 4,075 meters (73.5 k. c.), CW., and 25.8 meters (11,600 k. c.), CW., simultaneously. Schedule time: 12:30 p. m. (1730) and 11:45 p. m. (0445), 75th meridian time.

The 12:30 p. m. (1730) bulletin is in two parts. The first part is broadcast only during the hurricane season, June to November, inclusive, and consists of weather observations taken at the following places, which are indicated by key-letters:

Observation stations contained in first part and code letters	Second part of bulletin
Cape Gracias, Nicaragua. .... CG	Winds and weather over east Gulf of Mexico (east of longitude 90°).
Belize, Honduras. .... BZ	Winds and weather over west Gulf of Mexico (west of longitude 90°).
Bluefields, Nicaragua. .... BFD	Winds and weather over Caribbean Sea (west of longitude 73°) and Windward Passage.
Willemstadt, Curaçao. .... W	Storm warnings for Gulf of Mexico and Caribbean Sea.
San Juan, P. R. .... SJ	All hurricane warnings and advices when issued.
Port au Prince, Haiti. .... PP	
Cienfuegos, Cuba. .... CFG	
Guane, Cuba. .... GUE	
Kingston, Jamaica. .... KN	
Turks Island, Bahamas. .... TI	

The second part of the bulletin consists of wind and weather forecasts for the western and eastern Gulf of Mexico, the Caribbean Sea, and the Windward Passage. Whenever the conditions warrant, the forecasts are preceded by advices and warnings regarding any storm or hurricane that may be in progress, and of "northerns" during the winter months. *The second part of the bulletin is broadcast daily throughout the year.*

The 11:45 p. m. (0445) bulletin is broadcast daily throughout the year, and consists only of forecasts, advices, and warnings of the same character and for the same areas as are contained in the second part of the 12:30 p. m. (1730) bulletin.

When a hurricane is in progress the Weather Bureau will issue advices regarding its location, direction, progress, and intensity at frequent intervals, and these advices will be repeated every two hours and on the even hour.

## NEW ORLEANS, LA.

Station WNU—Tropical Radio Company.

*Radiotelegraph.* Frequencies of 90 k. c., CW (3,331 meters), and 10,470 k. c., CW (28.7 meters), simultaneously, at 11:30 a. m. (1630) and 11:30 p. m. (0430).

These broadcasts are the daily weather bulletins broadcast from Almirante, Panama, Station RXB. (See description of those bulletins directly above). While the bulletins are transmitted from WNU at New Orleans to RXB at Almirante, Panama, the transmissions are in the nature of broadcasts. Ships have the liberty of receiving these broadcasts and repeating them, if desired.

**LOCAL DISTRIBUTION OF FORECASTS, STORM AND HURRICANE WARNINGS, AND WEATHER INFORMATION BY RADIO**

Localized services, consisting of broadcasts of wind and weather forecasts, storm and hurricane warnings and advices relating thereto, which are supplemental to the bulletins as described above, are provided as follows:

*All broadcasts are made daily, Sundays and holidays included, except as otherwise noted, throughout the year.*

Radio stations				Weather information broadcast	Broadcasting schedules in 75th meridian time and G. C. T.	Weather Bureau stations issuing information
Location	Call letters	Frequency (kilo-cycles)	Wave length (meters)			
Charleston, S. C. .	NAO	122	2,459 ICW	(a) Wind and weather forecasts and storm warnings for South Carolina coast; advisory messages relating to storm warnings issued for middle, south Atlantic, and east Gulf coasts; and 8 a. m. (1300) barometric pressure, wind direction and velocity, and state of weather at Charleston. (b) Storm warnings and advices issued in afternoon and hurricane warnings and advisory messages relating thereto.	(a) 10:30 a. m. (1530)  (b) 6 p. m. (2300) When issued and repeated at 2-hour intervals for 24 hours.	Charleston, S. C.
Savannah, Ga . . . .	NEV	185	1,622 ICW	(a) Wind and weather forecasts and storm and hurricane warnings for Georgia coast; advisory messages relating to storm warnings issued for middle and south Atlantic and east Gulf coasts; and 8:00 a. m. (1300) barometric pressure, wind direction and velocity, and state of weather at Savannah.  (b) Storm warnings and advices issued in afternoon . . . . (c) Hurricane warnings and advisory messages relating thereto.	(a) 11 a. m. (1600)	Savannah, Ga.
		500	600		(b) 6:30 p. m. (2330) (c) When issued and repeated at 1-hour intervals until midnight (0500).	
St. Augustine, Fla. .	NAP	185	1,622 Spark	(a) Wind and weather forecasts and storm warnings for east Florida coast, Jacksonville to Miami; advisory messages relating to storm warnings issued for middle and south Atlantic and east Gulf coasts; and 8:00 a. m. (1300) barometric pressure, wind direction and velocity, and state of weather at Jacksonville and Titusville.  (b) Hurricane warnings and advisory messages relating thereto.	(a) 12 noon. (1700)	Jacksonville, Fla.
		500	600		(b) When issued and repeated at 1-hour intervals until 6 p. m. (2300).	
Jupiter, Fla . . . .	NAQ	185	1,622 ICW	(a) Wind and weather forecasts and storm warnings for east coast of Florida, Miami to Key West; advisory messages relating to storm warnings issued for the middle and south Atlantic and east Gulf coasts; and 8:00 a. m. (1300) barometric pressure, wind direction and velocity, and state of weather at Miami.  (b) Storm warnings and advices issued in afternoon . . . . (c) Hurricane warnings and advisory messages relating thereto.	(a) 11:30 a. m. (1630)	Jacksonville, Fla.
		500	600		(b) 6 p. m. (2300) (c) When issued and repeated at 1-hour intervals for 12 hours.	
Key West, Fla . . . .	NAR	113	2,655 CW	Wind and weather forecasts and storm and hurricane warnings for the Florida, south Atlantic, and east Gulf of Mexico coasts.	1 p. m. (1800)	Key West, Fla.
Pensacola, Fla . . . .	NAS	113	2,655 CW	(a) Wind and weather forecasts and storm warnings for Florida, Alabama, and Mississippi coasts, Apalachicola to Bay St. Louis; advisory messages relating to storm warnings issued for south Atlantic and Gulf coasts; and 8 a. m. (1300) barometric pressure, wind direction and velocity, and state of weather at Pensacola.  (b) Storm warnings and advices issued in afternoon and night. (c) Hurricane warnings and advisory messages relating thereto.	(a) 11:45 a. m. (1645)	Pensacola, Fla.
		500	600		(b) 6:00 p. m. (2300) (c) When issued and repeated at 1-hour intervals after first silent period for 12 hours.	

**LOCAL DISTRIBUTION OF FORECASTS, STORM AND HURRICANE WARNINGS, AND WEATHER INFORMATION BY RADIO—Continued**

Location	Radio stations			Weather information broadcast	Broadcasting schedules in 75th meridian time and G. C. T.	Weather Bureau stations issuing information
	Call letters	Frequency (kilocycles)	Wave length (meters)			
New Orleans, La...	NAT	104	2,885 CW	(a) Wind and weather forecasts for the Gulf coast, Apalachicola to Brownsville; 8 a. m. (1300) barometric pressure, wind direction and velocity at Apalachicola, Pensacola, Mobile, Port Eads, New Orleans, Port Arthur, Galveston, Corpus Christi, and Brownsville; and storm and hurricane warnings and advices issued in the morning affecting the Gulf and south Atlantic coasts. (b) Storm and hurricane warnings and advices issued after the a. m. broadcasts for the Gulf and south Atlantic coasts.	(a) 11 a. m. (1600)  (b) 12 noon (1700)	New Orleans, La.
New Orleans, La .	WNU	90	3,331 CW	(a) Wind and weather forecasts for Gulf coast, Apalachicola to Brownsville; 8 p. m. (0100) barometric pressure and wind direction and velocity at Pensacola, Mobile, Port Eads, and Galveston. General summary of night weather and barometric conditions. (b) Storm and hurricane warnings and advices issued at night for the Gulf and south Atlantic coasts.	(a) 10 p. m. (0300)  (b) 10 p. m. (0300)	New Orleans, La.
Port Arthur, Tex..	WPA	500	600 ICW	(a) Storm warnings for the Gulf of Mexico, and all hurricane warnings and advices whenever issued for the Gulf of Mexico, Caribbean Sea, and south Atlantic coasts.	(a) When issued.	Port Arthur, Tex.
Galveston, Tex....	WGV	390	770 ICW			
		361	830 ICW	(a) Wind and weather forecasts and storm warnings for Texas coast, Port Arthur to Corpus Christi; advisory messages relating to storm warnings issued for the west Gulf coast; and 8 a. m. (1300) barometric pressure, wind direction and velocity, and state of weather at Galveston. (b) Storm warnings and advices issued in afternoon ..... (c) Hurricane warnings and advisory messages relating thereto.	(a) 11.30 a. m. (1630) (Except Sundays and holidays.)  (b) 6 p. m. (2300) (c) When issued and repeated at 2-hour intervals until midnight (0500).	Galveston, Tex.
Brownsville, Tex..	NAY	104	2,885 CW	(a) Wind and weather forecasts and storm warnings for Texas coast, Corpus Christi to Brownsville; advisory messages relating to storm warnings issued for the west Gulf coast. (b) Storm warnings and advices issued in afternoon.....	(a) Noon. (1700)  (b) 7 p. m. (0000)	Brownsville, Tex.
San Juan, P. R...	NAU	48	6,250 CW	(a) Rebroadcasts, 10 a. m. (1500) and 10 p. m. (0300) Arlington (NAA) marine bulletin, consisting of coded reports (all of Part I) and synopsis, warnings, and ocean forecasts (portions of Part 2). See Circular No. 13, of August 1, 1929. (This rebroadcast not made when conditions do not permit of reception of Arlington bulletin at San Juan.)	(a) 11 a. m. (1600) and 11 p. m. (0400)	Washington, D. C.
		113	2,655 CW	(b) All hurricane warnings and advisory messages relating thereto whenever issued.		
		500	600		(b) When issued and repeated at 2-hour intervals until midnight (0500). When issued and repeated at about 4-hour intervals.	Washington, D. C., and San Juan, P. R.
Guantanamo, Cuba	NAW	500	600	All hurricane warnings and advisory messages relating thereto whenever issued. (Repeats San Juan bulletin. See note under that station, page 2.)	.....do.....	Do.
Port au Prince, Haiti	NSC	500	600	All hurricane warnings and advisory messages relating thereto whenever issued.	.....do.....	Do.
St. Thomas, V. I..	NBB	500	600	..... do.....	.....do.....	Do.
St. Croix, V. I....	NNI	500	600	..... do.....	.....do.....	Do.
Ensenada, P. R ..	WPR	500	600 Spark	..... do.....	.....do.....	Do.

NOTE.—Previous Weather Bureau Circular No. 14, dated September 15, 1927, is hereby superseded. For radio distribution on Pacific coast, see Circular No. 10—Radio (4th edition), dated May 1, 1929. For radio distribution on Atlantic coast and description of Arlington weather bulletin, see Circular No. 13—Radio (2d edition), dated August 1, 1929.